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SCHWEGMAN, LUNDBERG & WOESSNER, P.A.
P.O. BOX 2938
MINNEAPOLIS, MN 55402

| EXAMINER | |
|---|---|
| HAYES, BRET C | |

| ART UNIT | PAPER NUMBER |
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| 3641 | |

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

| Office Action Summary | Application No. | Applicant(s) | |
|---|---|---|---|
| | 10/539,538 | THEOBALD ET AL. | |
| | Examiner | Art Unit | |
| | BRET HAYES | 3641 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☐ Responsive to communication(s) filed on _____.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *1,3-16,18-27 and 30-41* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,3-16,18-27 and 30-41* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

## DETAILED ACTION

### *Response to Arguments*

1. Applicant's arguments filed 06 FEB 09 have been fully considered but they are not persuasive.

2. With respect to the argument that the use of 'a' or 'an,' when used in a patent claim, mean[s] 'one or more,' examiner disagrees. Note that the quotation cited is from *KJC Corp. v. Kinetic Concepts Inc.*, 223 F.3d 1351, 1356, 55 USPQ2d 1835, 1839 (Fed. Cir. 2000), and, not directly from *Crystal Semiconductor Corp. v. Tritech Microelectronics Int'l, Inc.*, 246 F.3d 1336, 57 USPQ2d 1953 (Fed. Cir. 2001). In both cases, it is noted that the particulars deal with a claim directed toward a singular invention comprising 'a' or 'an' element being sufficiently open-ended as to warrant later inclusion of another such element, or at least not the outright exclusion of such another element, and not a singular invention being later broadened to include a plurality of that singular invention. The example used in the first citation comes from US Patent No. 4,631,767 to Carr et al. The court set forth, "Claim phrase "a…continuous…chamber," covers one or more continuous chambers," and not the improper broadening of 'An air flotation mattress' to 'A plurality of air flotation mattresses'. The rejection of claims 15 – 16 and 18 under 112, 2nd paragraph stands.

3. In response to the argument that a *prima facie* case of obviousness had not been properly established, examiner disagrees. As emphatically cited, *KSR v. Teleflex* states, "***all the claimed elements were known in the prior art***." As examiner will show, such is the case. The rejections, as modified to encompass amendments to the claims, stand.

***Claim Rejections - 35 USC § 112***

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 15 – 16 and 18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

6. Claim 15 attempts to include more than one device. Such is improper as the recitations broaden the claimed subject matter of a singular device. See response to arguments above.

7. Any unspecified claim is rejected as being dependent upon a rejected base claim.

***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

9. Claims 1, 3 – 16, 18 – 27, 30 – 41 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent Nos. 6,213,021 B1 to Pickett in view of 5,552,372 to Ackermann et al. (*Ackermann*).

10. Re claim 1, Pickett discloses the claimed invention including a magnetic signature minesweeping device comprising: a ~~superconducting material~~ magnet, as set forth from col. 1, line 51 through col. 2, line 34; a power supply connection, such as from water driven turbine power generator **32**, Figs. 1 and 2, for example, to supply a driving current for the

~~superconducting material~~ magnet; a control unit **42**; and a heading sensor, such as would be normally found within helicopter **20**, Fig. 1, for example, in communication with the control unit. With respect to the control unit 'monitoring a magnetic heading,' 'arranged to control the magnetic output,' and 'cause different magnetic outputs,' so long as the prior art is capable of such, it anticipates the claim. Therefore, Pickett discloses the claimed invention except for the magnet being a superconducting material magnet.

Ackermann teaches that superconducting material magnets are well known in the art for the purpose of minesweeping, col. 1, lines 39 – 57.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Pickett to include the superconducting material magnet as taught by Ackermann in order to mine sweep. Rationale: All claimed elements were known in the prior art and one skilled in the art could have combined the elements as claimed by known methods with no change in their respective functions, and the combination would have yielded predictable results to a skilled artisan at the time the invention was made.

11. Re claim 3, Pickett further discloses wherein the minesweeping device comprises a water driven turbine power generator supplying the driving current through the power supply connection, as set forth above, and a plurality of sensor units arranged, in use, to monitor the magnetic output of the superconducting magnet, and the power output of the turbine power generator, and further comprises a feedback arrangement to supply feedback signals from the sensor units to the control unit, whereby the magnetic output and power output can be optimized for a specific mine countermeasure task. This is asserted because whether explicitly disclosed as

such or not, Pickett discloses these elements in a similar arrangement, Fig. 2, for example, for the purpose of hunting sea mines.

12. Re claim 4, Pickett in view of Ackermann discloses the claimed invention except for explicitly stating that the generator comprises adjustable pitch blades. It would have been obvious to one having ordinary skill in the art at the time the invention was made to make the blades adjustable, since it has been held that the provision of adjustability, where needed, involves only routine skill in the art. *In re Stevens*, 101 USPQ 284 (CCPA 1954). In this case, adjustability of the blades for reduced or increased power output would be within the level of ordinary skill in the art at the time the invention was made.

13. Re claim 5, Pickett further discloses wherein the superconducting material magnet is disposed as a three-axis magnetic source. See above with respect to capability of prior art.

14. Re claim 6, Pickett further discloses wherein the minesweeping device further comprises a communications unit arranged to enable remote access to the control unit, as set forth at col. 1, lines 8 – 12.

15. Re claim 7, in light of claim 6 above, Pickett discloses the claimed device except for the particular type of communications unit. It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the communications unit of Pickett with the any of the claimed types because it is well settled case law that a reference is valid for what it would convey explicitly or implicitly to one skilled in the art. See *In re Aller et al.* 105 USPQ 233, *In re McKee et al.* 37 USPQ 613, *In re Meinhardt* 157 USPQ 270. In this case, each selected type of unit is well known in the maritime art.

16. Re claims 8 – 10, Pickett in view of Ackermann discloses the claimed invention. Ackermann further teaches a superconductor material magnet, as set forth at col. 1, lines 30 – 38. This is asserted because where the prior art discloses the claimed materials, properties of those materials are considered to be inherent.

17. Re claim 11, Pickett in view of Ackermann discloses the claimed invention except for the magnet exhibiting a permanent magnetic output component and a variable magnetic output component. It would have been obvious to one having ordinary skill in the art at the time the invention was made to include both components, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980). In this case, so long as the overall magnetic signature mimicked that of a ship, its components would be within the level of ordinary skill.

18. Re claim 12, Pickett further discloses wherein the control unit is arranged such that the magnetic output is variable as a function of time and/or position, to facilitate the generation of desired magnetic signatures to emulate vessels, the device including at least one position sensor to which the control unit is responsive. Pickett discloses the blade **34** moving in response to the rectifier **40** via the control unit. The manipulation of the magnetic output would be within the level of ordinary skill in the art as applied to claim 11 above.

19. Re claim 13, Pickett further discloses wherein the device is a magnetic signature device operable in target emulation mode (TEM), wherein it emulates the magnetic signature of a particular vessel. This is asserted because: Pickett discloses a target emulation mode; and, the term "operable" has been interpreted as "capable of operating," which the prior art is certainly, similarly capable.

20. Re claim 14, Pickett further discloses wherein the device is operable in mine setting mode (MSM), and is configured to produce a magnetic signature associated with a particular type of mine to trigger said mine. This is asserted for the reasons set forth above with respect to claim 13.

21. Re claim 15 – 16 and 18, Pickett in view of Ackermann discloses the claimed invention except for duplicating the device and connecting duplicate devices together. It would have been obvious to one having ordinary skill in the art at the time the invention was made to duplicate the minesweeping device, since it has been held that mere duplication of the essential working parts of a device involves only routine skill in the art. *St, Regis Paper Co. v. Bemis Co.*, 193 USPQ 8. In this case, connection of the devices would be considered to be within the level of ordinary skill in the art as a normal course of using multiple devices.

22. Re claim 19, Pickett in view of Ackermann discloses the claimed invention except for the separation of elements. It would have been obvious to one having ordinary skill in the art at the time the invention was made to separate the elements as claimed, since it has been held that constructing a formerly integral structure in various elements involves only routine skill in the art. *Nerwin v. Erlichman*, 168 USPQ 177, 179.

23. Re claims 34 – 36, Pickett in view of Ackermann discloses the claimed invention. See claim 3, for example.

24. Re claims 37 – 41, Pickett in view of Ackermann discloses the claimed invention as applied above. See claim 11 for discussion of manipulations to mimic a ship. Such would be within the level of ordinary skill at the time the invention was made.

25. Re method claims 20 – 30, in light of the structure disclosed by Pickett in view of Ackermann, the method of operating the device would have been obvious since it is the normal and logical manner in which the device could be used.

***Conclusion***

26. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication should be directed to Bret Hayes at telephone number (571) 272 – 6902 or email address bret.hayes@uspto.gov, which is preferred. The examiner can normally be reached Monday through Friday from 5:30 am to 2:00 pm, Eastern Standard Time.

The Central FAX Number is **571-273-8300**.

If attempts to contact the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Carone, can be reached at (571) 272 – 6873.

/Bret Hayes/

Primary Examiner, Art Unit 3641

13-Apr-09